

Ser. No. 09/936,479
Customer No. 24498

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Listing and Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) Method for encoding an audio signal that is processed in multiple subbands and overlapping window functions into which the signals in the subbands are partitioned, wherein the resulting sample blocks are in each case transformed into corresponding blocks of spectral domain coefficients and are coded using data reduction, and wherein different window forms are used and the information about the window forms used is transmitted, recorded or stored in the side information for the coded coefficients, and wherein upon deciding to process, during a given time period, in a first group of subbands the subband signals at least in part with a given sequence of window forms different from the corresponding sequence of window forms used to process the subband signals in a second group of subbands, transmitting, recording or storing in said side information is additional information about such mixing of window forms,

said method including the steps:

- following such decision to process in a first group of subbands the subband signals at least in part with a given sequence of window forms different from the corresponding sequence of window forms used to process the subband signals in a second group of subbands, not transmitting recording or storing in said side information information about the window forms used in said given sequence;
- instead, transmitting, recording or storing in said side information information about further subband signal window switching configuration types.

2. (Original) Method according to claim 1, wherein said audio signal is an MPEG-I Audio Layer 3, MPEG-2 Audio Layer 3, or AAC audio signal.

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3. (Original) Method according to claim 1, wherein said configuration types define in which of the total number of subbands used the window switching is affected, or not affected, by said additional information about mixing of window forms.
4. (Original) Method according to claim 3, wherein said configuration types further define different subbands groups fixed within the total number of subbands, that are affected by said additional information, and/or wherein said configuration types further define variable subbands groups within the total number of subbands, that are affected by said additional information.
5. (Original) Method for decoding an audio signal that was processed using multiple subbands and overlapping window functions into which the signals in the subbands are partitioned, wherein the resulting sample blocks were in each case transformed into corresponding blocks of spectral domain coefficients and are coded using data reduction, and wherein different window forms were used and the information about the window forms used was transmitted, recorded or stored in the side information for the coded coefficients, and wherein upon the decision to process, during a given time period, in a first group of subbands the subband signals at least in part with a given sequence of window forms different from the corresponding sequence of window forms used to process the subband signals in a second group of subbands, additional information about such mixing of window forms was transmitted, recorded or stored in said side information, the decoding including the steps:
- decoding said side information of the received, replayed or read-out signal,
 - using said decoded side information, performing data reduction decoding of the received, replayed or read-out code, and in each case inverse transforming said blocks of spectral domain coefficients into corresponding sample blocks,
 - assembling said inverse transformed sample blocks using said overlapping window functions and assembling said multiple subband signals into the decoded

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audio signal, wherein upon in said encoding, following such decision to process in a first group of subbands the subband signals at least in part with a given sequence of window forms different from the corresponding sequence of window forms used to process the subband signals in a second group of subbands, in said side information information about the window forms used in said given sequence was not transmitted, recorded or stored but instead information about further subband signal window switching configuration types was transmitted, recorded or stored in said side information, evaluating in said decoding said further subband signal window switching configuration type information and selecting the corresponding window forms when assembling said inverse transformed sample blocks using said overlapping window functions and when assembling said multiple subband signals into the decoded audio signal.

6. (Original) Method according to claim 5, wherein said audio signal is an MPEG-1 Audio Layer 3, MPEG-2 Audio Layer 3, or AAC audio signal.
7. (Original) Method according to claim 5, wherein said configuration types define in which of the total number of subbands used the window switching is affected, or not affected, by said additional information about mixing of window forms.
8. (Original) Method according to claim 7, wherein said configuration types further define different subbands groups fixed within the total number of subbands, that are affected by said additional information, and/or wherein said configuration types further define variable subbands groups within the total number of subbands, that are affected by said additional information.
9. (Original) Apparatus for encoding an audio signal, including:
 - a processor processing said audio signal using multiple subbands and overlapping window functions into which the signals in the subbands are

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partitioned, and transforming in each case the resulting sample blocks into correspond in blocks of spectral domain coefficients;

- a coder coding said coefficients using data reduction, wherein different window forms are used and the information about the window forms used is attached to the en code audio signal in the side information for the coded coefficients, and wherein upon deciding to process, during a given time period, in a first group of subbands the subband signals at least in part with a given sequence of window forms different from the corresponding sequence of window forms used to process the subband signals in a second group of subbands, additional information about such mixing of forms of window forms is attached to said side information, and wherein following such decision to process in a first group of subbands the subband signals at least in part with a given sequence of window forms different from the corresponding sequence of window forms used to process the subband signals in a second group of subbands, said information about the window forms used in said given sequence is not attached to said side information but instead information about further subband signal window switching configuration types.

10. (Currently Amended) Apparatus for decoding an audio signal that was processed using multiple subbands and overlapping window functions into which the signals in the subbands are partitioned, wherein the resulting sample blocks were in each case transformed into corresponding blocks of spectral domain coefficients and are coded using data reduction, and wherein different window forms were used and the information about the window forms used was transmitted, recorded or stored in the side information for the coded coefficients, and wherein in the encoding following the decision to process, during a given time period, in a first group of subbands the subband signals at least in part with a given sequence of window forms different from the corresponding sequence of window forms used to process the subband signals in a second group of subbands, additional information about such mixing of window forms was transmitted, recorded or stored in said side information, said apparatus including:

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- a decoder decoding said side information of the received, replayed or read-out signal,
- a decoder performing data reduction decoding of the received, replayed or read-out code using said decoded side information, and inverse transforming in each case said blocks of spectral domain coefficients into corresponding sample blocks, and assembling said inverse transformed sample blocks using said overlapping window functions, and assembling said multiple subband signals into the decoded audio signal,

wherein in said encoding, following such decision to process in a first group of subbands the subband signals at least in part with a given sequence of window forms different from the corresponding sequence of window forms used to process the subband signals in a second group of subbands, in said side information information about the window forms used in said given sequence was not transmitted, recorded or stored but instead information about further subband signal window switching configuration types was transmitted, recorded or stored in said side information,

and wherein said decoder decoding said side information evaluates said further subband signal window switching configuration type information, which is then used for selecting the corresponding window forms when assembling said inverse transformed sample blocks using said overlapping window functions and when assembling said multiple subband signals into the decoded audio signal in said decoder performing data reduction decoding, inverse transform and assembling.